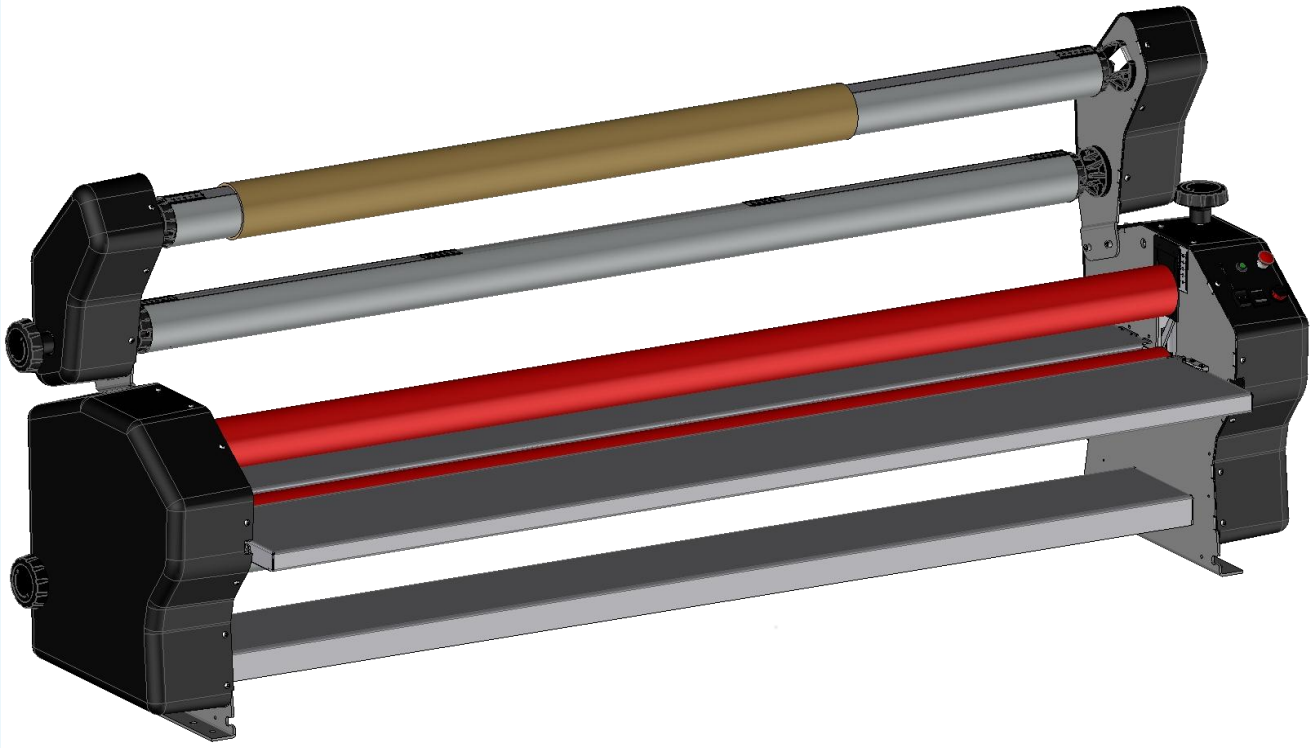
STARTER

1080 – 1400 – 1600

USER MANUAL



kala®
Finishing Systems

INTRODUCTION

We thank you for your purchase of a Kala laminator. It has been designed by our team of engineers for intensive use with the guarantee of quality outputs. Made from the best material and under tough quality control in the successive steps of its manufacture, this laminator has been produced in our factory to fulfill all your production requirements for many years.
This laminator will allow you to do :
Single side lamination with or without simultaneous adhesive mounting,
Mount images onto rigid boards,
Apply application tape onto your cut vinyl.

To obtain the best results out of your machine and use all of its features, we strongly recommend that you read this user manual.

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1. CONFORMITY DECLARATION & WARRANTY

Kala S.A.S
Parc de l'Ecotay
35410 Nouvoitou
France

Declares that the following product : STARTER 1080 – 1400 - 1600 conforms to the following requirements :
Voltage 230-240V 50-60hz :

• Machines Directive (2009) : 2006/42/CEE including :

• Low tension Directive 2006 95 CE according to Norm EN 60204 - 1 (2006)

• Electromagnetic Compatibility Directive 2004 108 CE According to norm EN 61000-6-1 and EN 61000-6-3. Edition 2007.

Always seeking to make progress, we reserve the right to change equipment and technical features or our models without notice.

Warranty :

Your Laminator STARTER is guaranteed against all defects of materials and manufacturing for a period of one year from the date of purchase.

In the event of defects of materials or manufacturing, the company which sold the instrument will repair it on site or in its premises. There is no warranty other than the one mentioned above.

The rollers of the laminator are submitted to different grade of usage depending on your application while lamination. The only warranty on the rollers concerns manufacturing defaults and does not cover damages resulting from usage of their components.

The warranty does not cover individual damage or damage resulting from indirect causes, whether foreseeable or not.

The warranty does not cover incorrect use of the machine that would be outside of the scope of the applications listed in the introduction.

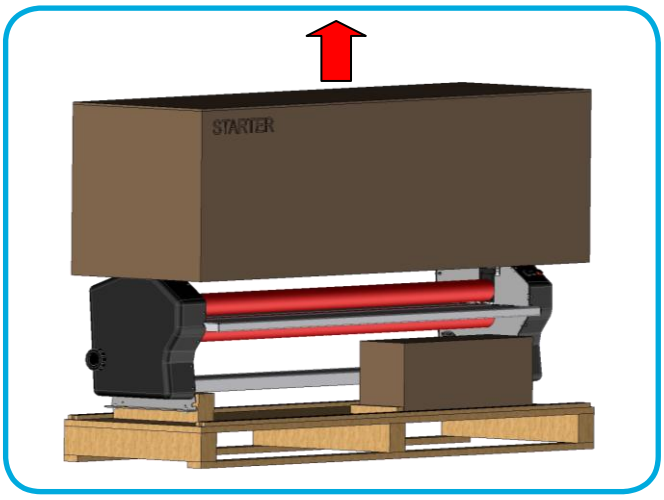
The manufacturer warranty will be void if the machine has been modified by a third party, not appointed and not approved by the manufacturer to do such modifications.
The warranty is granted to the original buyer of the equipment and is not transferable to another user in the event of a sale of this same equipment.

2. *THE RECEPTION OF YOUR LAMINATOR*

2.1 Definition of your working space

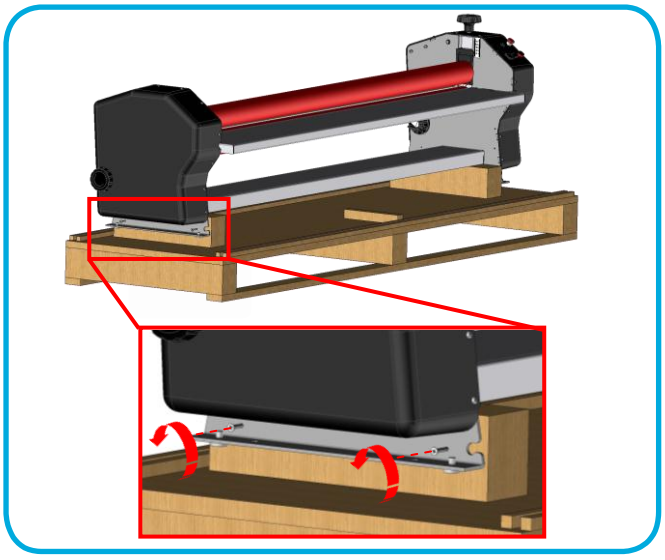
Before unpacking your machine, it is necessary to determine your working space area. You should have easy access to all the parts of the machine.

When mounting onto rigid boards, make sure that you will have at least one meter free space on top of the maximal length of your boards in front and in rear of the machine.



Use of movable tables, which height corresponds to the feeding table of the laminator is recommended.

Your laminator should be positioned in the center of this area and the user will secure it in position by locking the castors on the stands in order to avoid any unexpected move while working.



2.2 Unpacking the laminator

Remove the carton crate. Accessories, film shafts and stand are inside the pallet. Remove them out of the pallet.

Unscrew the 4 screws fixing the machine on the pallet.

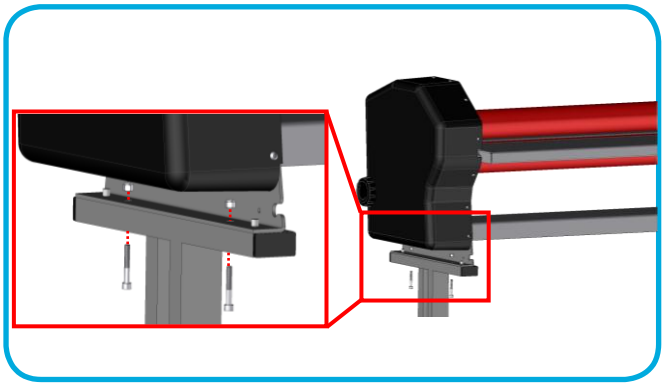
2.3 Laminator stand assembly

The components of the stand are in a separate carton. To assemble the stand, refer to the instruction inside the carton.

2.4 Positioning of the laminator on the stand

The machine is heavy. 2 persons are required to position the machine on its stand.

Take the machine by the plastic side. Handle the machine with care.



The holes on the stand should align with the holes in the laminator chassis. Screw the machine to the stand with the screws delivered with the stand.

3. CAUTION WHEN INSTALLING THE MACHINE

3.1 Electrical power requirement

Before connecting the machine to the power, check that :

- The tension of the machine corresponds with the tension of your electrical network.

- The electrical connection requires a plug compatible with CEI 60309-1.

- The electrical connection should comply with installation norm NFC 15 100.

3.2 Installation

- Install the laminator on a flat and stable floor, next to an easily accessible plug.

- Do not touch the socket with damp hands.

- To unplug the machine, disconnect the plug without pulling on the supply lead.

- To prevent electric shocks, do not use this laminating machine close to water.

- Leave a large enough working area in front and behind the machine.

- Do not spill water on the machine, the supply lead or the electric socket.

- Do not use the machine if the supply lead is damaged.

- Do not leave the electric lead in contact with a warm surface.

- The machine should be installed in a well-ventilated place.

3.3 Safety information :

User's risks indication

According to the actual regulations listed in (#1), user's risks are located and noticed on the laminator in the following manner :

Electrical shocks hazards :

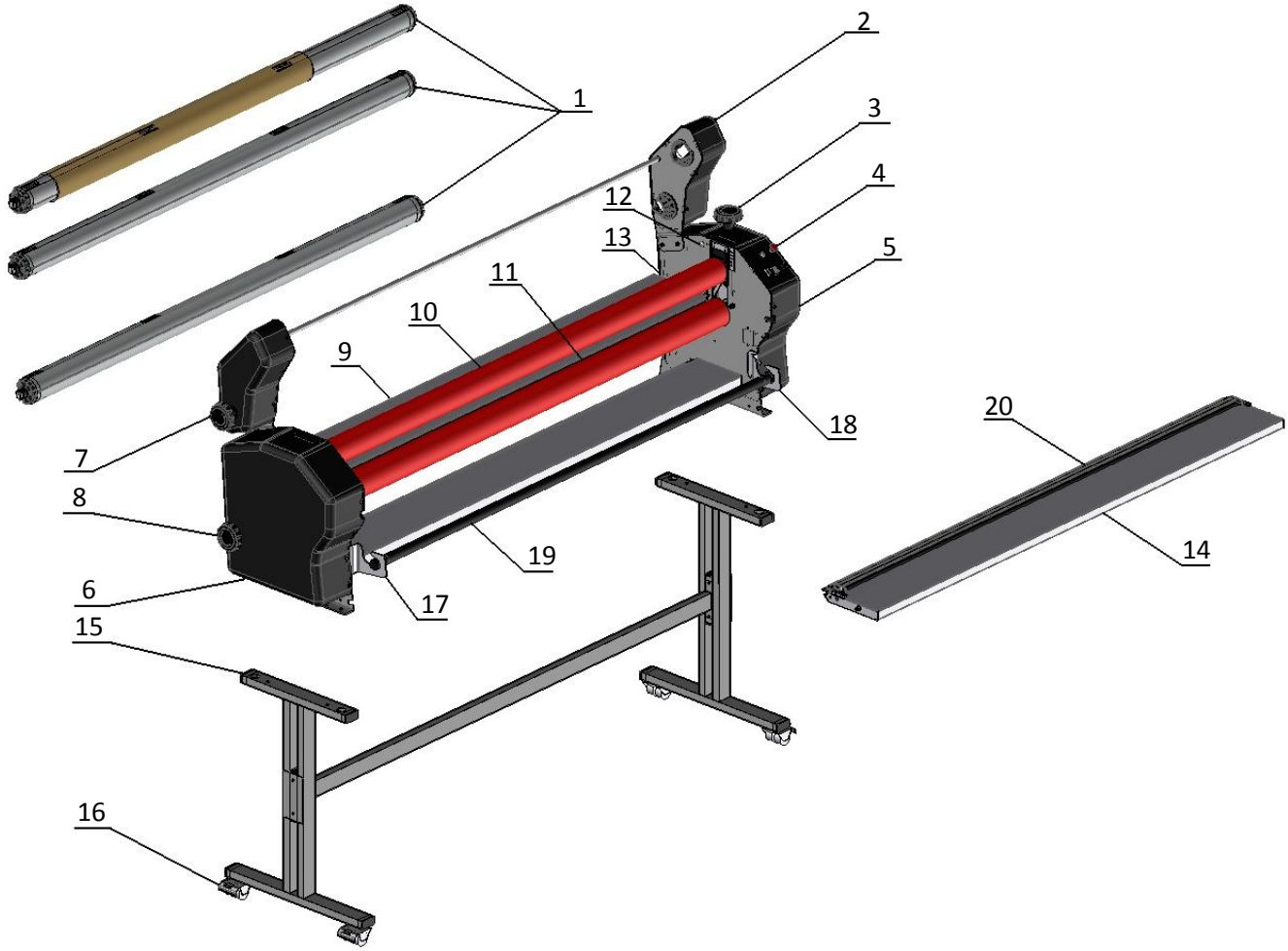
This sign indicates that there are electrical components inside the machine. Opening this area should be done by aqualified technician when the machine is off tension and not linked to the power.

Crushing risk

This sign on the feeding tray alerts about risks for fingers, hands, clothes, hairs… to be crushed into the rollers either spinning or being set into pressure.

4. COMPONENTS OF THE LAMINATOR, CONTROL BOARD

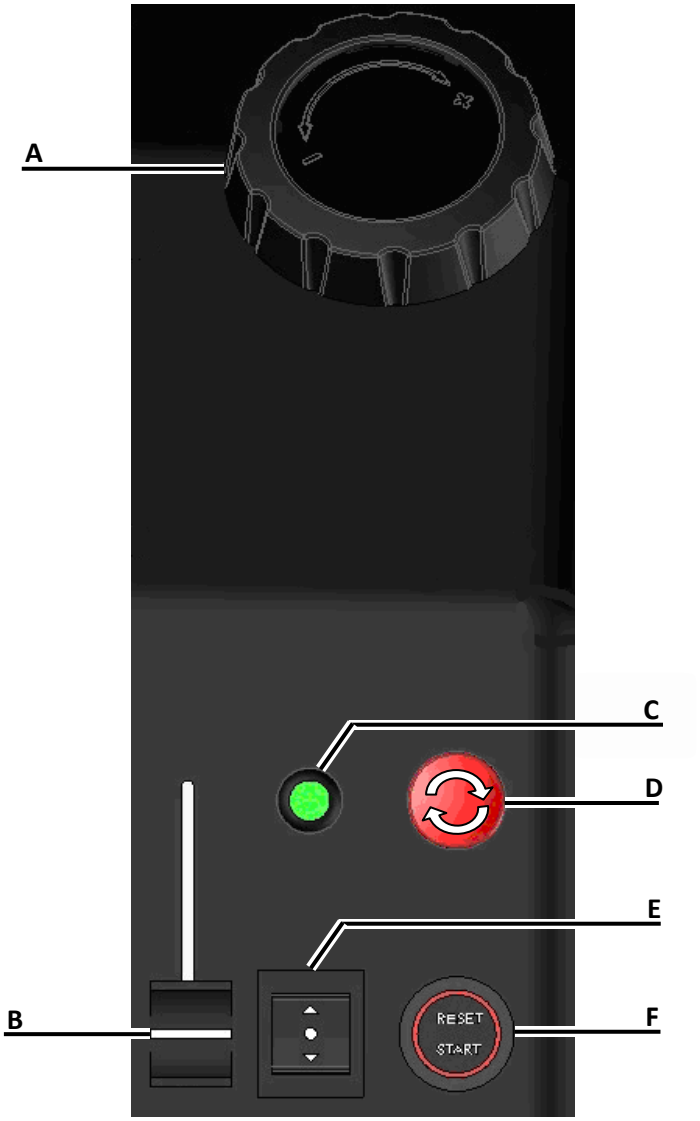
4.1 Components of the laminator and accessories



1 Self blocking shafts
2 Upper right side cover
3 Handle for roller elevation and pressure adjustment
4 Control board
5 Right machine side cover
6 Left machine side cover
7 Upper film roll tension adjustment handle
8 Lower media, waster paper, adhesive roll tension adjustment handle
9 Back tray
10 Upper roller
11 Lower roller
12 Pressure gauge LED indicator
13 On/off switch
14 Feeding tray
15 Stand
16 Castors
17 Option : left support for feeding bar
18 Option : right support for feeding bar
19 Option : feeding bar
20 Option : poster feeding guide

4. COMPONENTS OF THE LAMINATOR, CONTROL BOARD

4.2 Control board



A Handle for roller elevation and pressure adjustment of the upper roller

B Speed adjustment

C LED indicator for the machine working mode

- : GREEN : Forward
- : ORANGE : Reverse
- : OFF : stop
- : RED : Machine safety activated

D Emergency switch

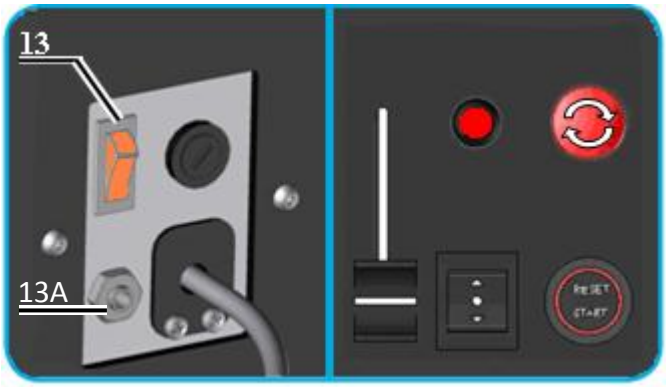
E Working mode selection switch

- Forward
- Stop
- Reverse

F Safety reset

5. ADJUSTMENTS AND RECOMMENDATIONS

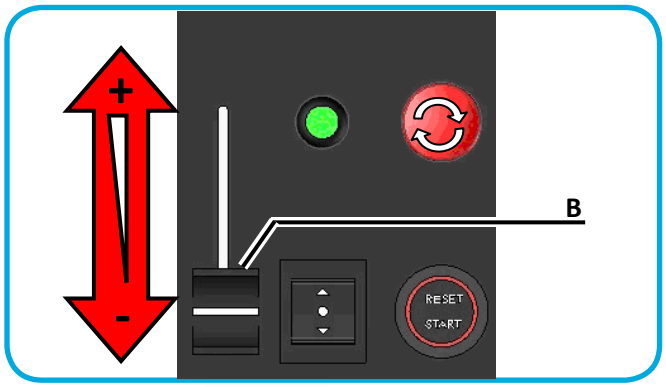
5.1 Switching on the laminator



Plug the machine to the power and turn it on by pressing the switch located at the rear of the machine (Rep 13).

The LED indicator showing the working mode on the control board turns red (Rep.C). To start working, safeties have to be reactivated by pressing on the safety reset button (Rep.F).

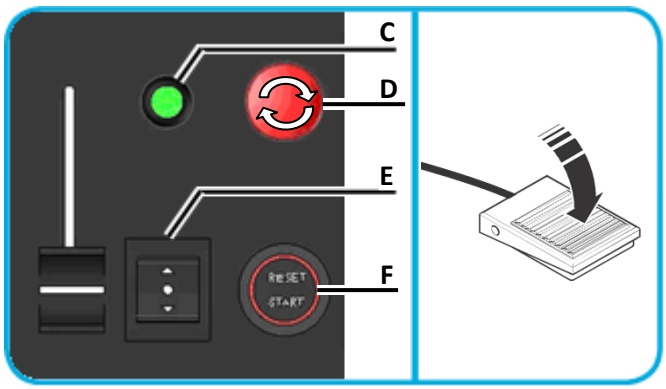
5.2 Speed adjustment



Adjust the roller driving speed by using the potentiometer (Rep.B) on the control board.

The machine can only be driven by using the foot pedal. Connect the foot switch jack plug to the back of the machine (Rep.13A).

Forward :

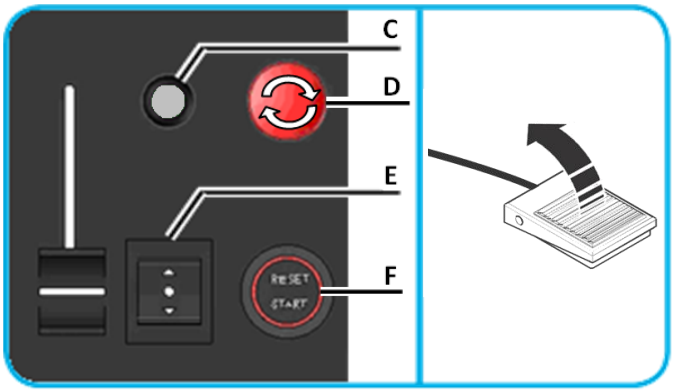


Make sure that the machine is ready to work after checking the safety status. If necessary, reset the safety to start working (Rep.F)

Select the working mode (Rep.E) to forward. The LED indicator (Rep.C) should turn to green. Press on the foot pedal to start operating the machine.

For smoother operation, it is recommended to start with a slow speed that will make feeding the print easier. When engaged, speed can be increased

Stop :



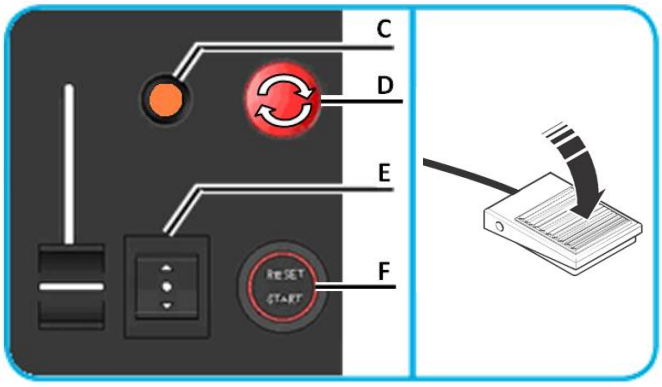
To stop the machine running :

- Stop pressing on the foot switch.
- Turn the working mode selection swith (Rep.E) in the middle position.
- Or in case of emergency, press on the emergency switch (Rep.D).
-

5.ADJUSTMENTS AND RECOMMENDATIONS

Reverse :

Select the working mode selection switch to reverse (Rep.E). The LED indicator (Rep.C) should turn to orange. Press on the foot pedal to start operating the machine into reverse motion.

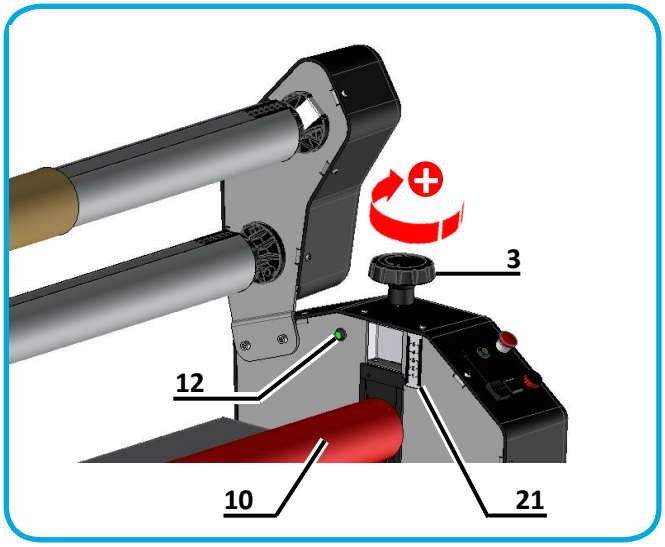


5.3 Roller pressure adjustment

The laminator Starter has got a manual pressure adjustment system and roller elevation mechanism. It allows to process thick material (Max. thickness : 50 mm / 2").

Roller nip adjustment :

Turn the roller elevation handle (Rep.3) until you reach the required nip. You can read an indication about the nip in mm on the graduated scale on the right side of the machine (Rep.21) according to the thickness indicator (Rep.22). Turning the handle clockwise will bring the upper roller down in contact with the lower roller or the media for further pressure adjustment.

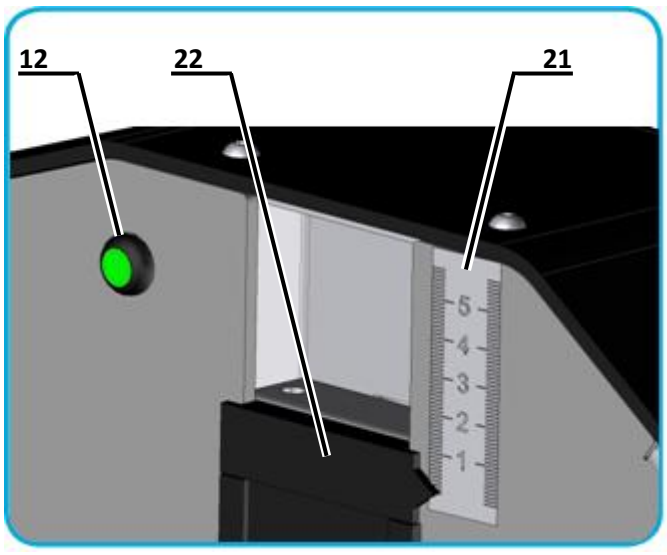


Roller pressure adjustment :

When upper roller is in contact with the material or the lower roller, keep turning the handle clockwise to increase the pressure (Rep.3).

The LED pressure gauge light (Rep. 12) will change colour depending on the amount of pressure applied.

Keep turning the handle to reach the required amount of pressure.



- : OFF : No pressure
- : GREEN : Low pressure
- : ORANGE : Intermediate pressure
- : RED : Maximum pressure

5. ADJUSTMENTS AND RECOMMENDATIONS

When maximum pressure level is reached, the LED pressure indicator light (Rep.12) turns to red and the mechanism is locked to prevent any damages due to trying to apply to much pressure on the mechanism.

To decrease pressure, turn the roller elevation handle (Rep. 3) anti-clockwise.

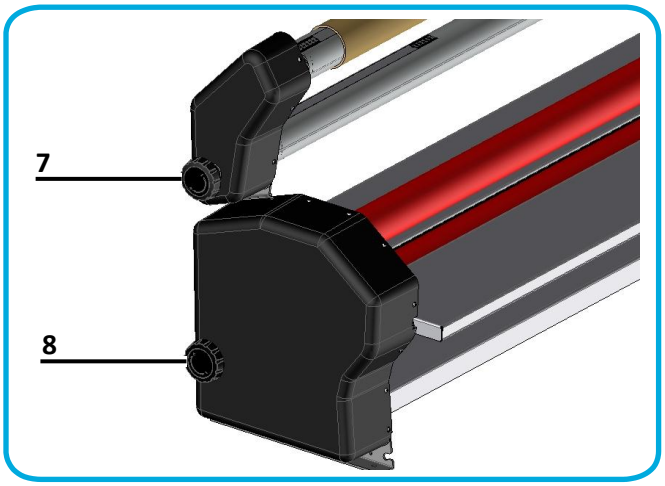
To increase pressure, turn the roller elevation handle (Rep. 3) clockwise.

5.4 Film tension adjustment

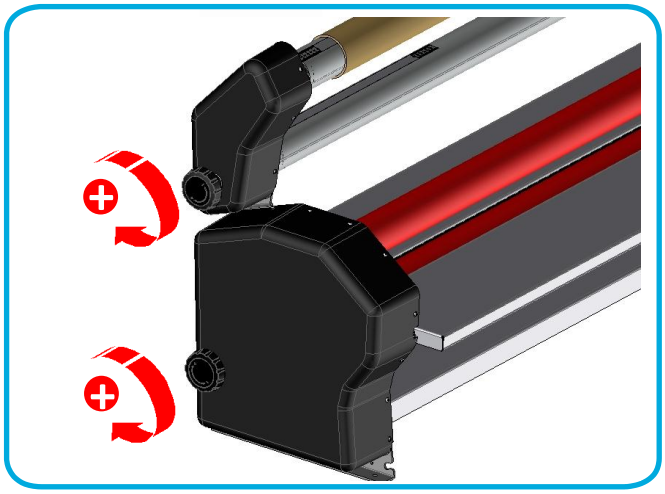
The roll film tension adjustment handles (Rep.7) and (Rep 8) enable to adjust the tension of the film reels on the self blocking shafts.

For a perfect lamination result, the film, without folds, should be in contact with the roller. It is recommended to avoid unnecessary tension on the film. Only tests will enable you to set the right tension depending on your films and application.

If folds appears on the surface of the film, increase the tension slightly to remove them.



To increase the tension, turn the brake handles (Rep.7) or (Rep.8) clockwise.

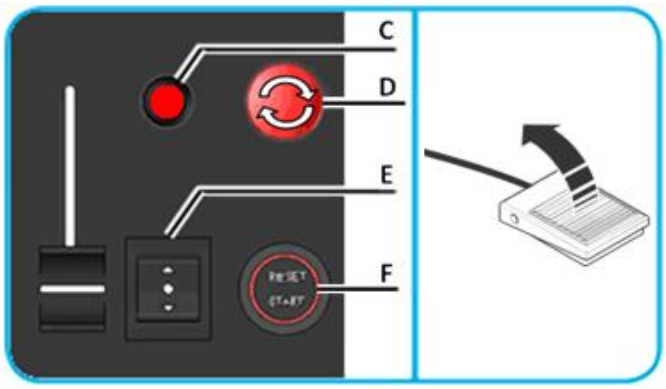


5.5 User safety

Starter laminator has got 2 security devices which automatically stop the rollers :

- Driving the rollers can only be done with the foot pedal. Lifting off the foot from the foot pedal switches automatically driving off.

- Emergency stop button (Rep.D) : located at the right hand side of the machine, above the control board. Pressing this button will instantly stop the machine.



5. ADJUSTMENTS AND RECOMMENDATIONS

Use of the safety reset button :

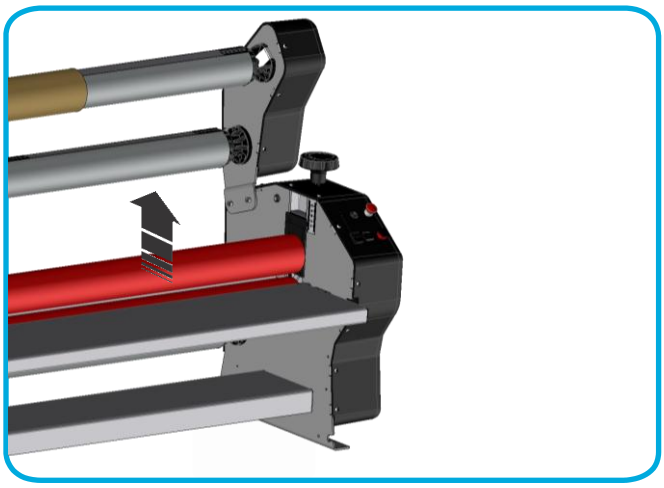
If the emergency button has been pushed, the rollers would not start rotating. The working mode LED indicator (Rep. C) would be red, meaning that safety is active.

To reset the safety, check the the emergency button is disengaged (Rep.D) and press on the safety reset button (Rep.F) to start operating the machine..

By listening carefully, the user may hear a « clic », corresponding to his pressing on the reset button.

5.6 Switching off the machine

The rollers are among the master components of your laminator. Their regular and proper maintenance will secure long years of use.



CAUTION : Before switching the machine off, raise the upper roller up by a few mm so that it does not stay in contact with the lower one. This would avoid the creation of a flat contact line that you may after find on your works.

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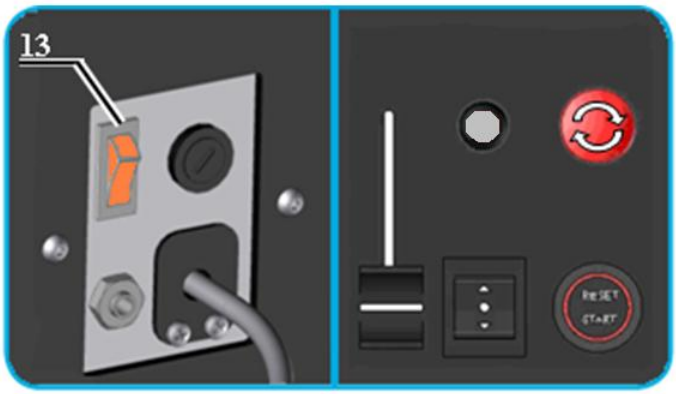
Then turn off the machine from the power by switching the main switch off (Rep.13).

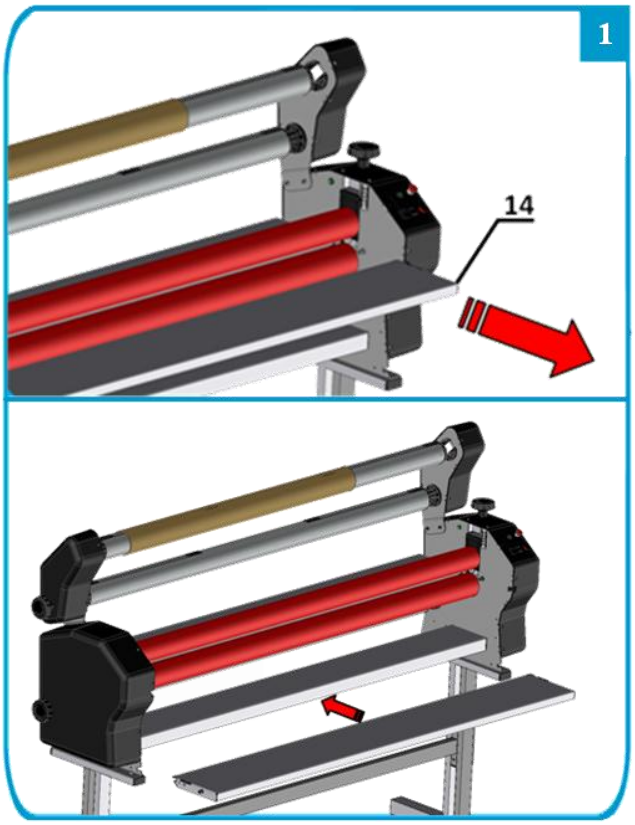


6. APPLICATIONS

6.1 Single side lamination with waste paper or simultaneous adhesive mounting

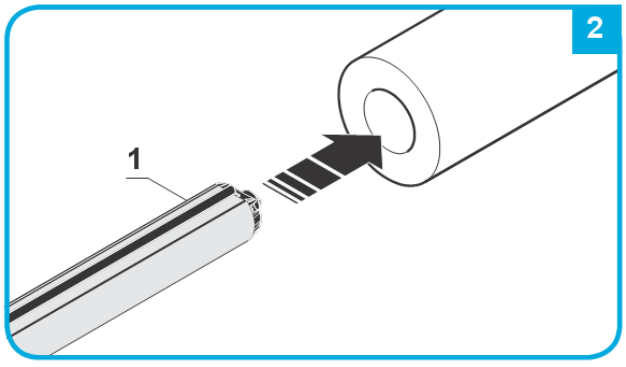
1. Turn on the machine (ref. §5.6).

Remove the feeding tray (Rep.14).

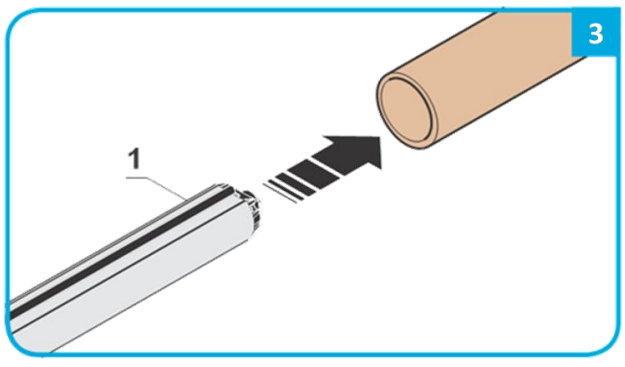


If the machine is installed on a stand, you can store the feeding tray (Rep.14) on the base of the stand, below the machine while installing the media.

2. Insert a self blocking shaft (Rep.1) into the core of the film reel.



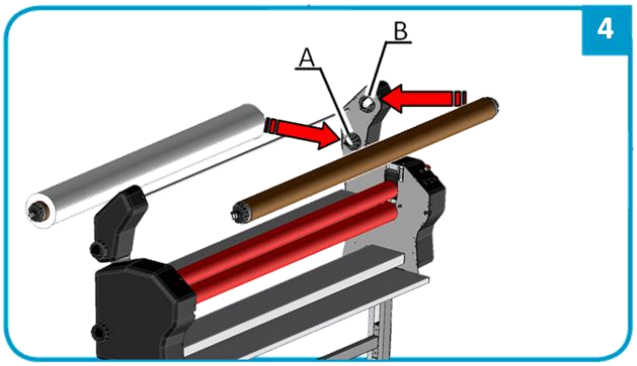
3. Insert a self blocking shaft (Rep.1) into a cardboard mandrel to take up the film release paper.



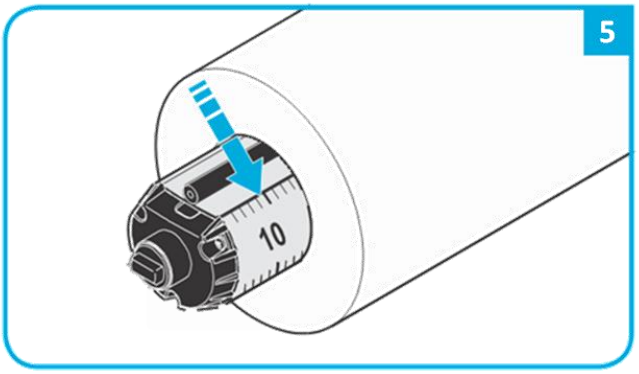
6. APPLICATIONS

4. Place the shaft with the film reel on position (A) of the machine (film release paper facing up).

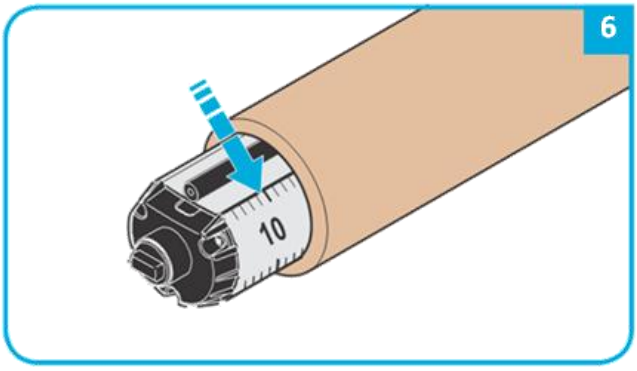
Place the shaft with the carton mandrel on position (B) of the machine.



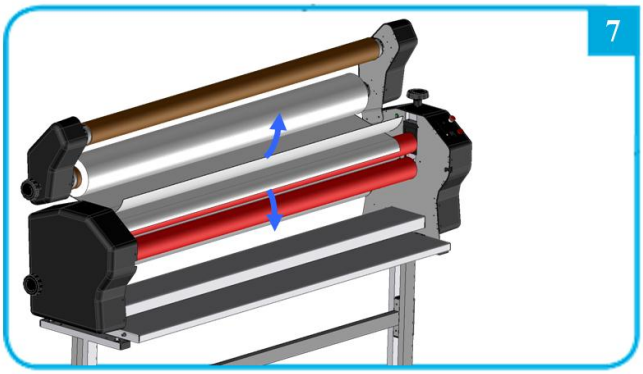
5. Centre the film reel on the shaft using the graduated measurement.



6. Centre the cardboard mandrel on the shaft using the graduated measurement.

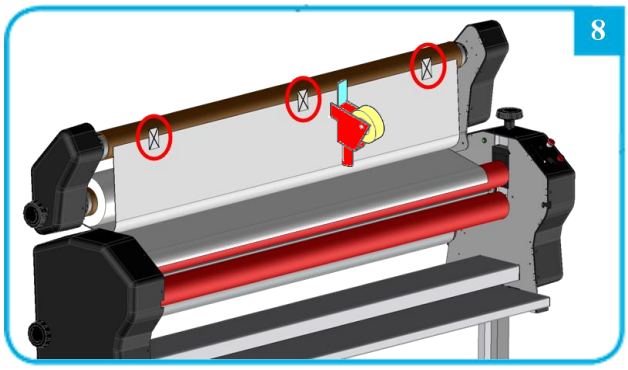


7. Separate the lamination film from its release paper.

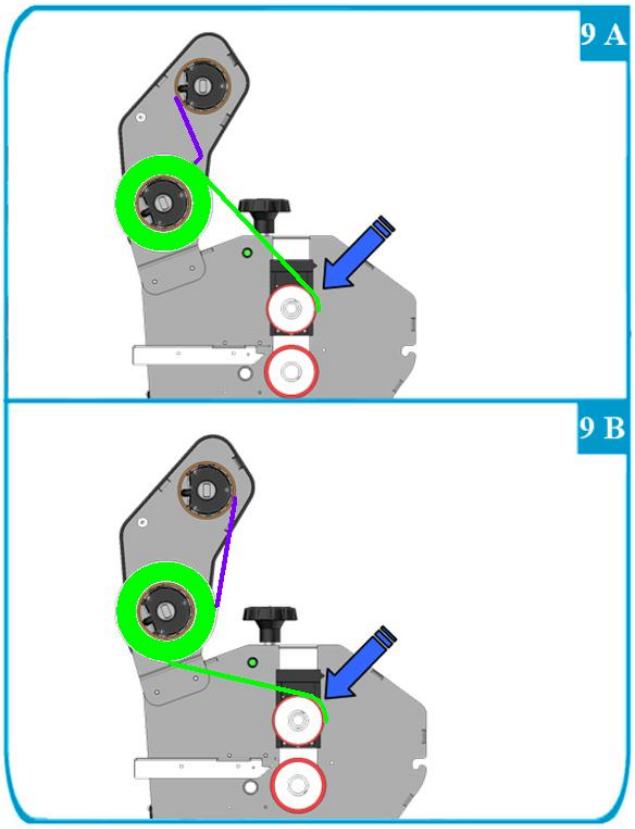


6. APPLICATIONS

8. Stick the release paper onto the cardboard mandrel using an adhesive tape gun.

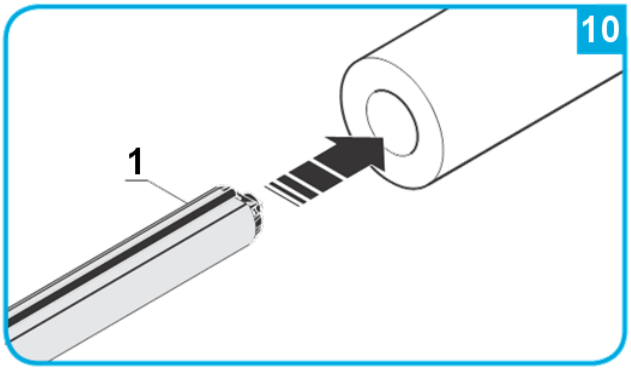


9. Lay the film onto the upper laminating roller (sticky side facing toward you).



10 Installing the double side adhesive or the waste paper on the lower shaft.

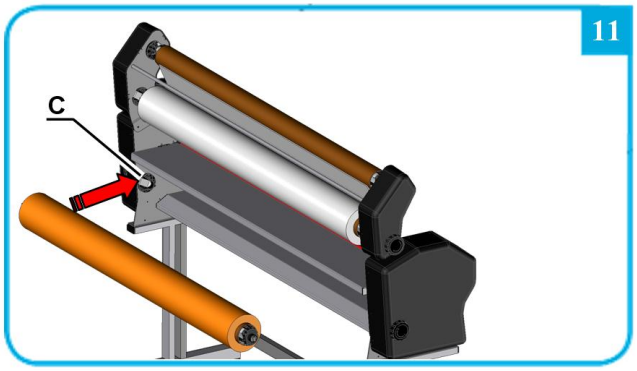
Insert a self blocking shaft (Rep.1) into the core of the waste paper or double side adhesive reel.



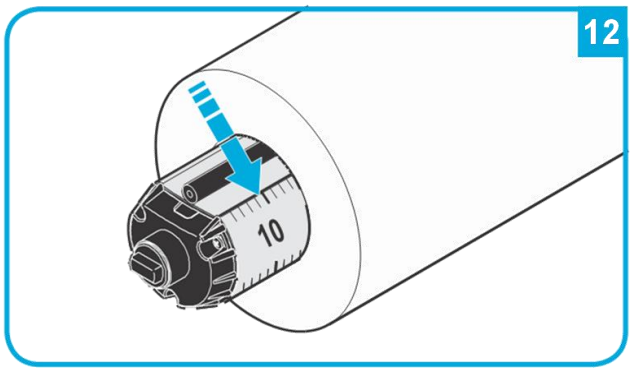
The waste paper reel should be wider than the lamination film

6. APPLICATIONS

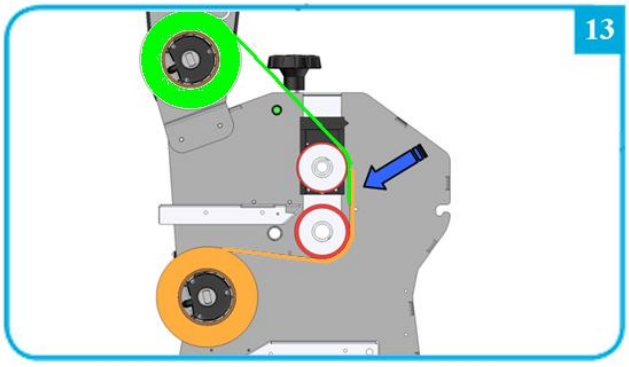
11. Place the assembly on position (C) of the machine.



12. Centre the reel on the shaft using the graduated measurement.

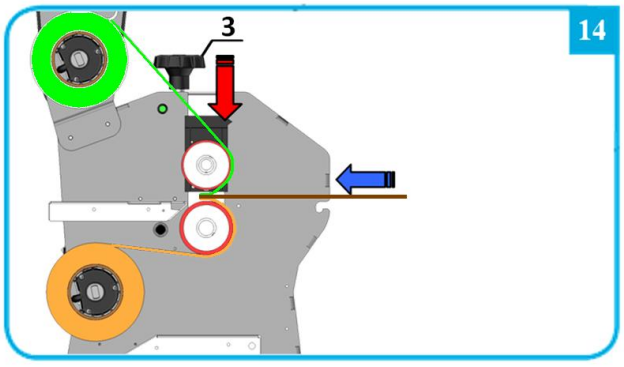


13. Stick the paper onto the adhesive film.



14. Use a thin board (carton, pvc, metal…) to insert paper and film between the rollers. Take the upper roller down in contact with the board using the roller elevation handle (Rep.3).

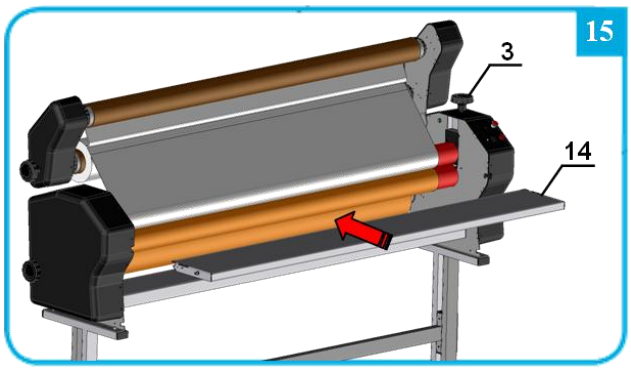
Select forward and press on the foot pedal until the board gets out of the rollers.



6. APPLICATIONS

14. Once the board is out or the machine, adjust the pressure by using the roller elevation handle (Rep. 3) according to the kind of operation you will have to achieve. For pressure adjustment recommendation, please refer to § 7.1).

Install the feeding tray (Rep.14).

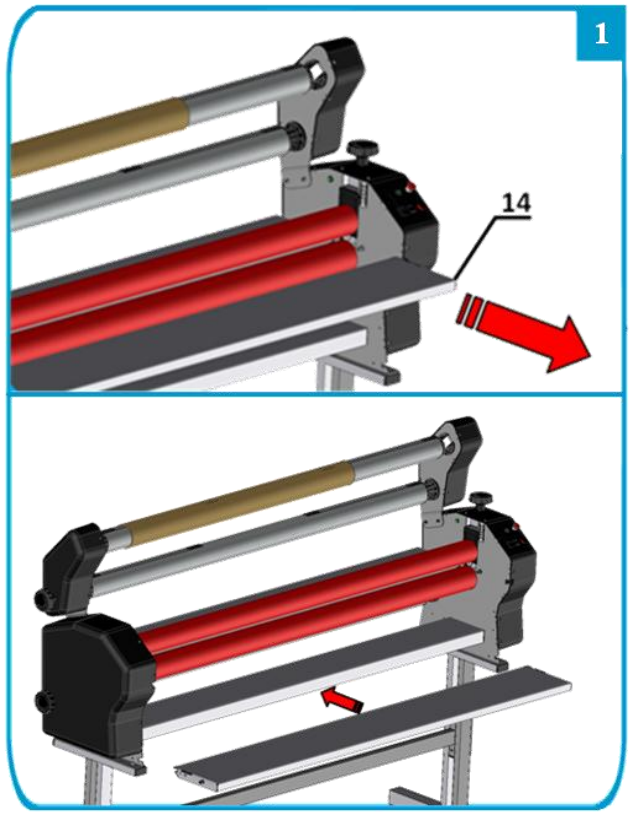


6.2 Use of application tape

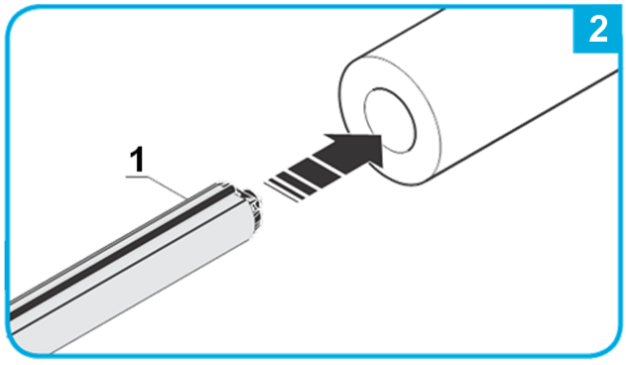
1. Turn on the machine (ref §5.6).

Remove the feeding tray (Rep.14).

If the machine is installed on a stand, you can store the feeding tray (Rep.14) on the base of the stand, below the machine while installing the media.

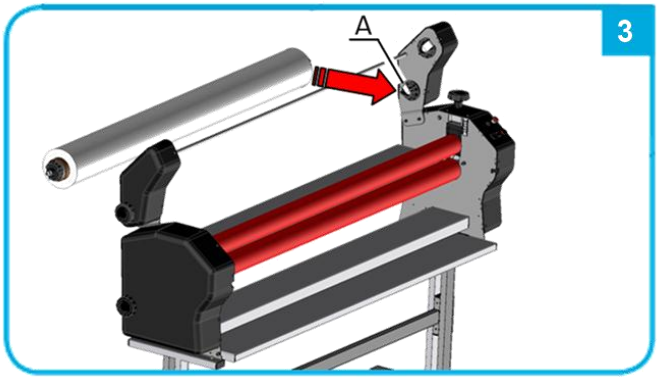


2. If the machine is installed on a stand, you can store the feeding tray (Rep.14) on the base of the stand, below the machine while installing the media.

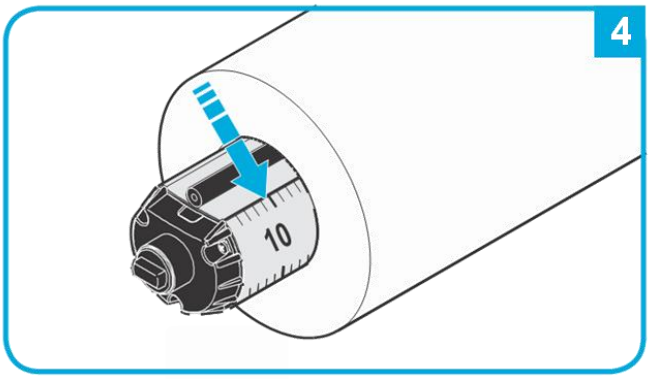


6. APPLICATIONS

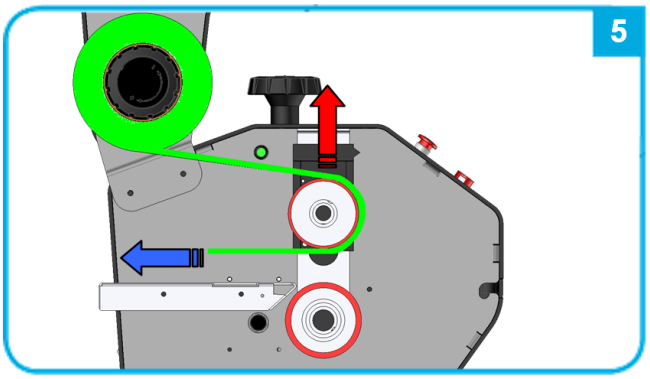
3. Place the assembly on position (A) of the machine (adhesive side of the application tape facing toward the user).



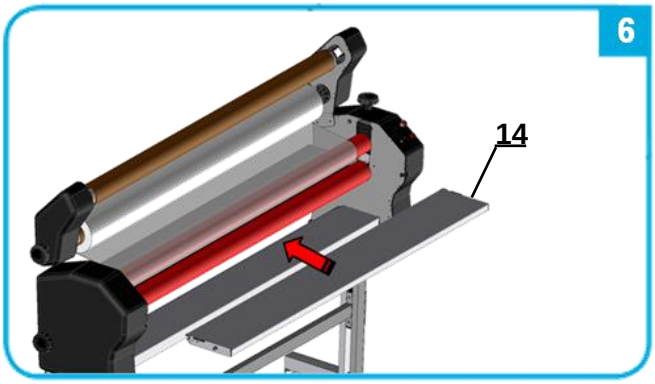
4. Centre the reel on the shaft using the graduated measurement.



5. Raise the upper roller (refer to § 5.3). Tear off the application tape toward the back of the machine so that there are no fold on the surface of the application tape.

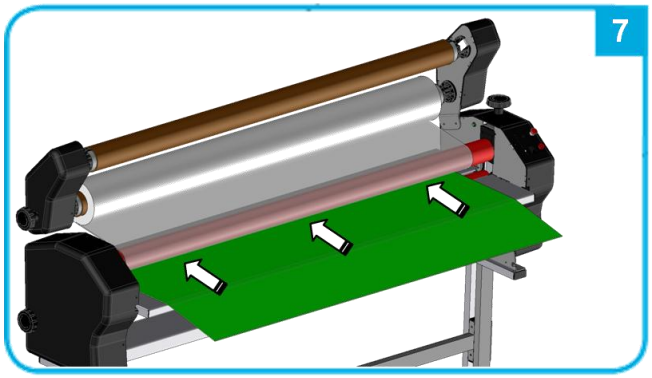


6. Install the feeding tray (Rep.14).

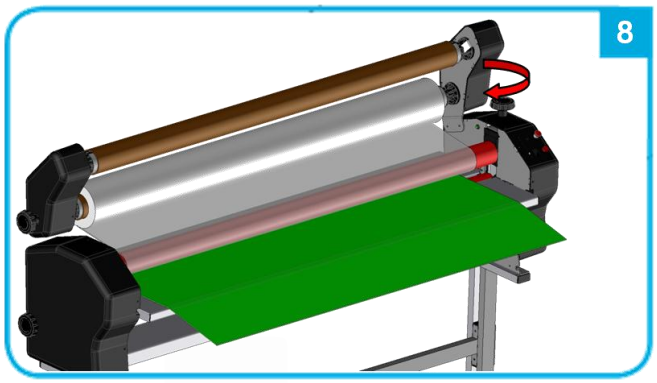


6. APPLICATIONS

7. To avoid the application tape to stick onto the lower roller, run a vinyl width of the same size or wider than the application tape.

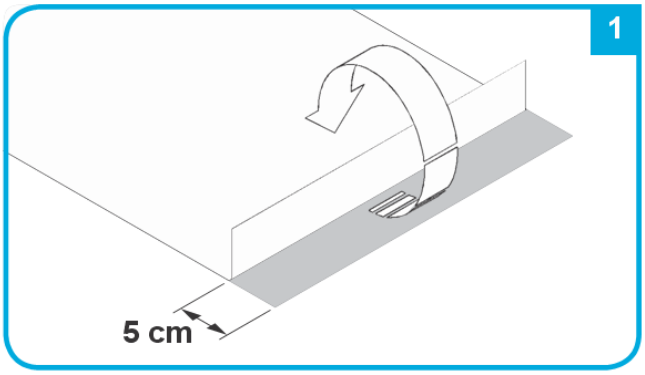


8. Lower the upper roller (refer to § 5.3) and adjust pressure based on the width of the print and regarding our pressure adjustment recommendations (refer to § 7.1).



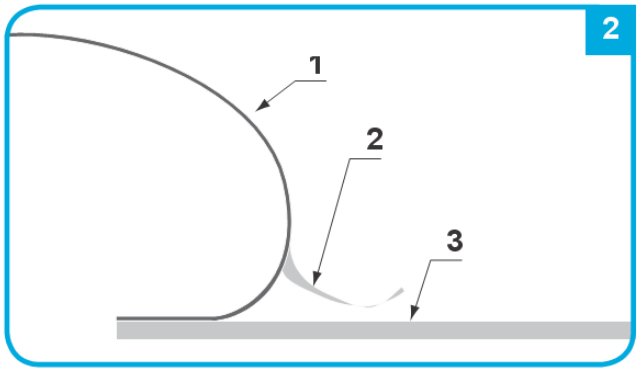
6.3 Mounting onto rigid boards

1. On the adhesive back side of the print, remove a stripe of protection paper on a width of about 5 cm and fold it.



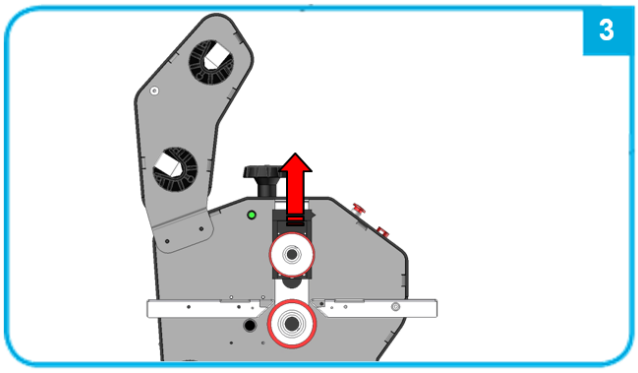
2. Position the print (Rep. 1) on the board and stick manually the stripe onto the board (Rep. 3).

Tear off slightly part of the release paper from the back of the print. (Rep. 2).

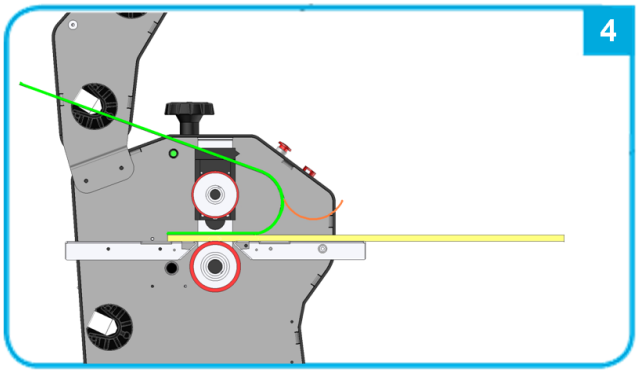


6. APPLICATIONS

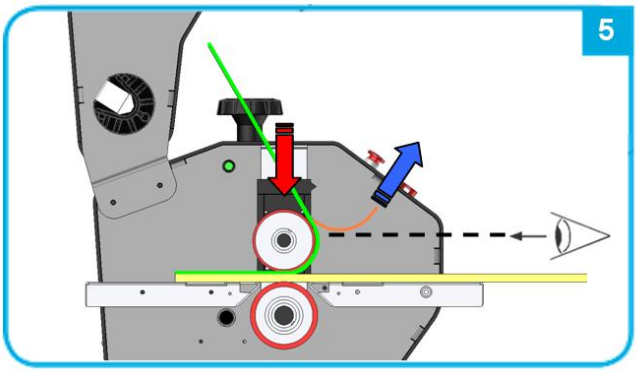
3. Raise the upper roller high enough regarding to the thickness of the board. (refer to § 5.3).



4. Place the board with the print on the feeding tray between the rollers.



5. Adjust the roller pressure (refer to #5.3) based on the width of the board and regarding our pressure adjustment recommendations (refer to § 7.1), while laying the print on the surface of the upper roller.
Remove the release paper from the back of the print up to the top of the upper roller



6. Start the machine with the foot pedal.

Remove the release paper manually while the board and print are being fed. When doing this, try to keep the widest possible part of the print in contact with the upper roller.

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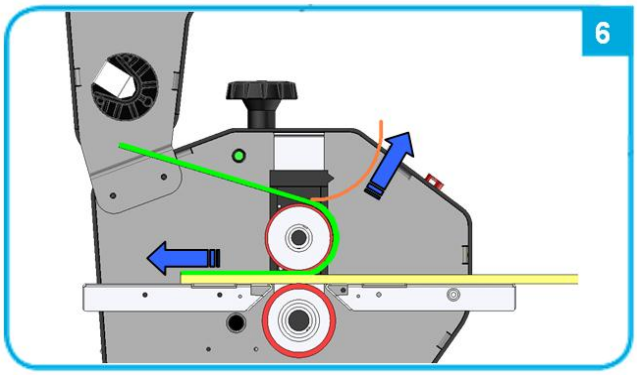


6. APPLICATIONS

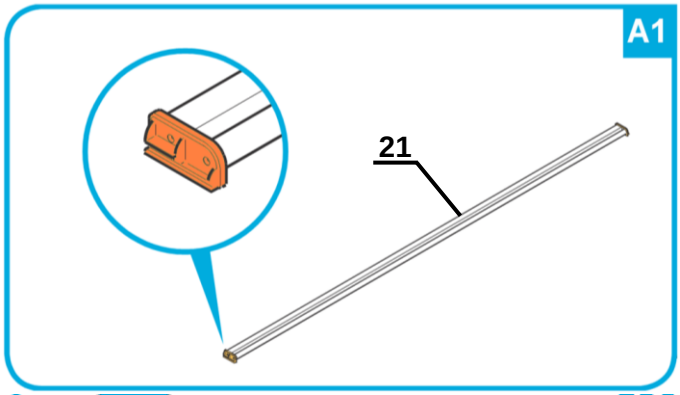
6.4 Options

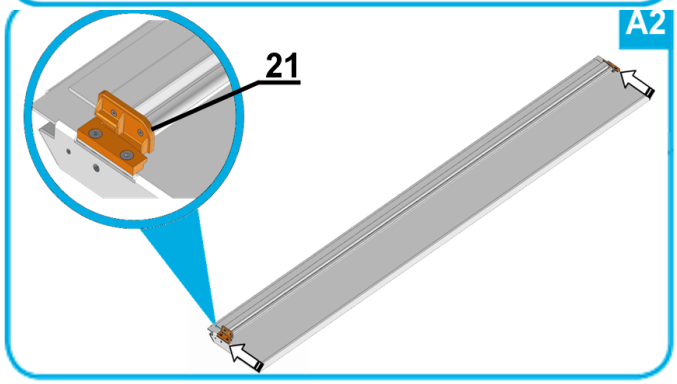
A - Paper guide and roll scrolling bar : (optional)

The removable paper guide can be installed on the feeding tray to make the insertion of print into the laminator easier.

To install it on the feeding tray, slide the guide through the feeding tray ends.

To mount it onto the machine, please refer to the assembly instruction delivered with the kit.





The scrolling bar can be adapted on the machine to preserve prints on a roll from dust and damage.

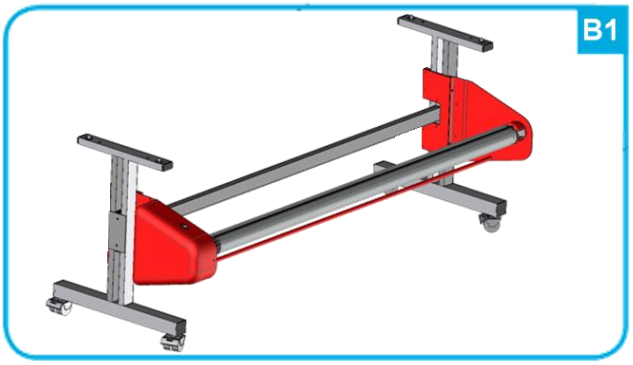
To mount it onto the machine, please refer to the assembly instruction delivered with the kit.

6. APPLICATIONS

B - <u>Electrical laminated prints rewinder</u> : *(Optional and only to be mounted on the stand (Refer to §D below))*

Usefull for processing long print runs, it can be mounted on the back of the machine.

To mount it onto the machine, please refer to the assembly instruction delivered with the kit.



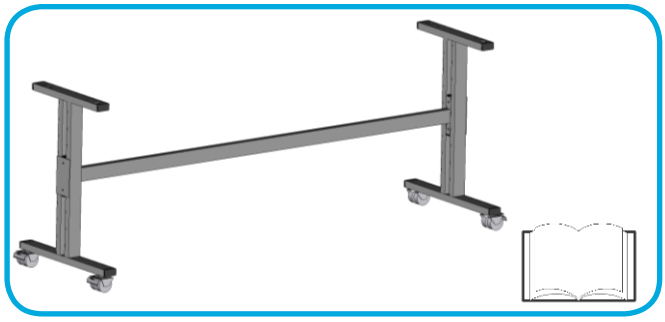
6. APPLICATIONS

D - Optional stand :

Machine can be installed onto the optional stand with castors.

Electrical print rewinder (§B above) and film reels holder (§C above) can be added to it.

To mount it onto the machine, please refer to the assembly instruction delivered with the kit.



7. ADJUSTMENTS

7.1 Recommandations for pressure adjustment

Single side lamination, adhesive mounting :Paper, vinyl, polyester

Colour of the LED pressure gauge indicator based on the print width.

- : Medium pressure : Print width below 2/3rd of the total width of the machine.
- : Full pressure : Print width over 2/3rd of the total width of the machine.

Mounting onto rigid boards : Foam board, PVC…

Colour of the LED pressure gauge indicator based on the board width.

- : Low pressure : width of the board below ½ of the total width of the machine.
- or Medium to full pressure : width of the board above ½ of the total width of the machine.

7.2 Speed adjustment recommendation

Speed should be adjusted depending on your work and experience. However, it is recommended to start with a lower speed when feeding the prints through the roller to make sure the operation is fine and then increase the speed based on your application.

8. MAINTENANCE AND SAFETY

8.1 Maintenance

FREQUENCY	PART	ACTION
Immediately	Ink waste on the rollers or on the feeding tray	Soap and water
Weekly	Laminating rollers *	Soap and water
	Feeding tray	Soap and water
	Back tray	Soap and water
	Plastic side covers	Soap and water
Mensuel	Stand	Soap and water

* : Cleaning the rollers should be done when the upper roller is up, the machine switched off, and the feeding tray removed.

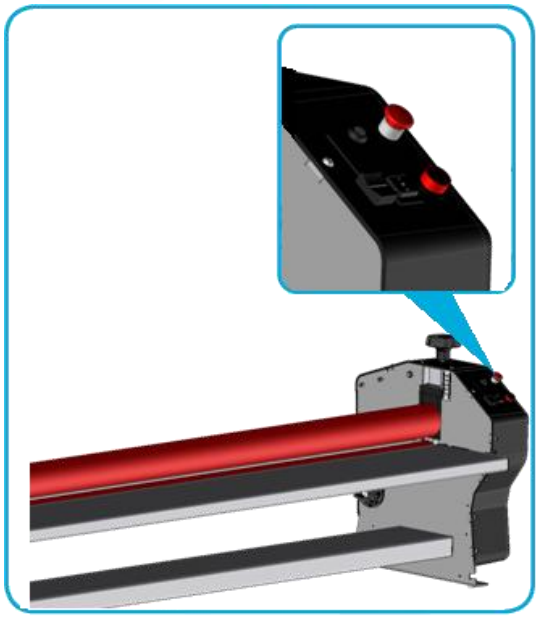
Do not leave the rollers under pressure for long period of time when the machine is switched off. This will avoid the creation of a flat contact line that you may after find on your output.

8. Maintenance and safety

8.2 Safety : weekly test

Emergency stop button :

- Put the rollers in contact and let rotate.
- Push one of the emergency stop.
- Rollers should stop.
- Reset the emergency button by pulling it



9. TECHNICAL DATA

	STARTER 1080	STARTER 1400	STARTER 1600
Maximum working width (in mm/inch)	1128 (44.4'')	1440 (56.7'')	1612 (63.5'')
Maximum opening of the rollers (in mm / inch)	50 (2'')	50 (2'')	50 (2'')
Pressure on the roller in daN	30 to 85	30 to 85	30 to 85
Maximum speed (in metre and feet / minute)	3,5m/mn (11 ft/mn)	3,5m/mn (11 ft/mn)	3,5m/mn (11ft/mn)
Dimensions on stand W x H x D (in mm/inch)	1484 x 1472 x 532 58'' x 57'' x 21''	1796 x 1472 x 532 71'' x 57'' x 21''	1968 x 1472 x 532 77'' x 57'' x 21''
Dimensions without stand W x H x D (in mm/inch)	1484 x 792 x 532 58'' x 30.5'' x 19.5''	1796 x 792 x 532 58'' x 30.5'' x 19.5''	1968 x 972 x 532 58'' x 30.5'' x19.5''
Weight: machine / machine + stand	78 Kg / 91 Kg 171 / 200 lbs	105 Kg / 119 Kg 231 / 261 lbs	114 Kg / 129 Kg 251 / 284 lbs
Height of the working table : with stand / without stand	99,5 cm / 31,5 cm 39'' /12.4''	99,5 cm / 31,5 cm 39'' /12.4''	99,5 cm / 31,5 cm 39'' /12.4''
Power (in Watt)	50 W	50 W	100 W
Voltage (Volt)	230V - 240V /110V 50Hz - 60Hz Single phase	230V - 240V /110V 50Hz - 60Hz Single phase	230V - 240V /110V 50Hz - 60Hz Single phase
Amperage (A)	1A – 220V 2A – 110V	1A – 220V 2A – 110V	1A – 220V 2A – 110V

10. Storing the film reels

Long term :

Do not leave the film reel laying flat on the floor. Damaging risk to the film reel.

Film reels should be stored vertically in their original package, in a dust free environment and in a room not subject to high variation of humidity and temperature.

Short term :

The film reel can be stored on self blocking shaft of the laminator.

11. LAMINATION INCIDENTS

PROBLEME	POSSIBLE CAUSE	ACTION
The print folds or waves during lamination.	The print is fed too quickly	Hold the print more firmly when feeding it
	The print has not been fed flat	
	Paper too light or not dry enough	
Fold in the length of the film	The tension on the film is too light	a) Use the brake to remove the fold b) Check the way the films are loaded on the machine.
The print is curling to the top	Too much tension on the upper film	Both films on top and bottom should have a similar tension. Correct the brake on both
The print is curling to the bottom	Too much tension on the lower film	Both films on top and bottom should have a similar tension. Correct the brake on both

12. MAINTENANCE

User maintenance is limited to current maintenance as described in #8.

In case of a change of plug, only use a plug type CEI 60309-1.

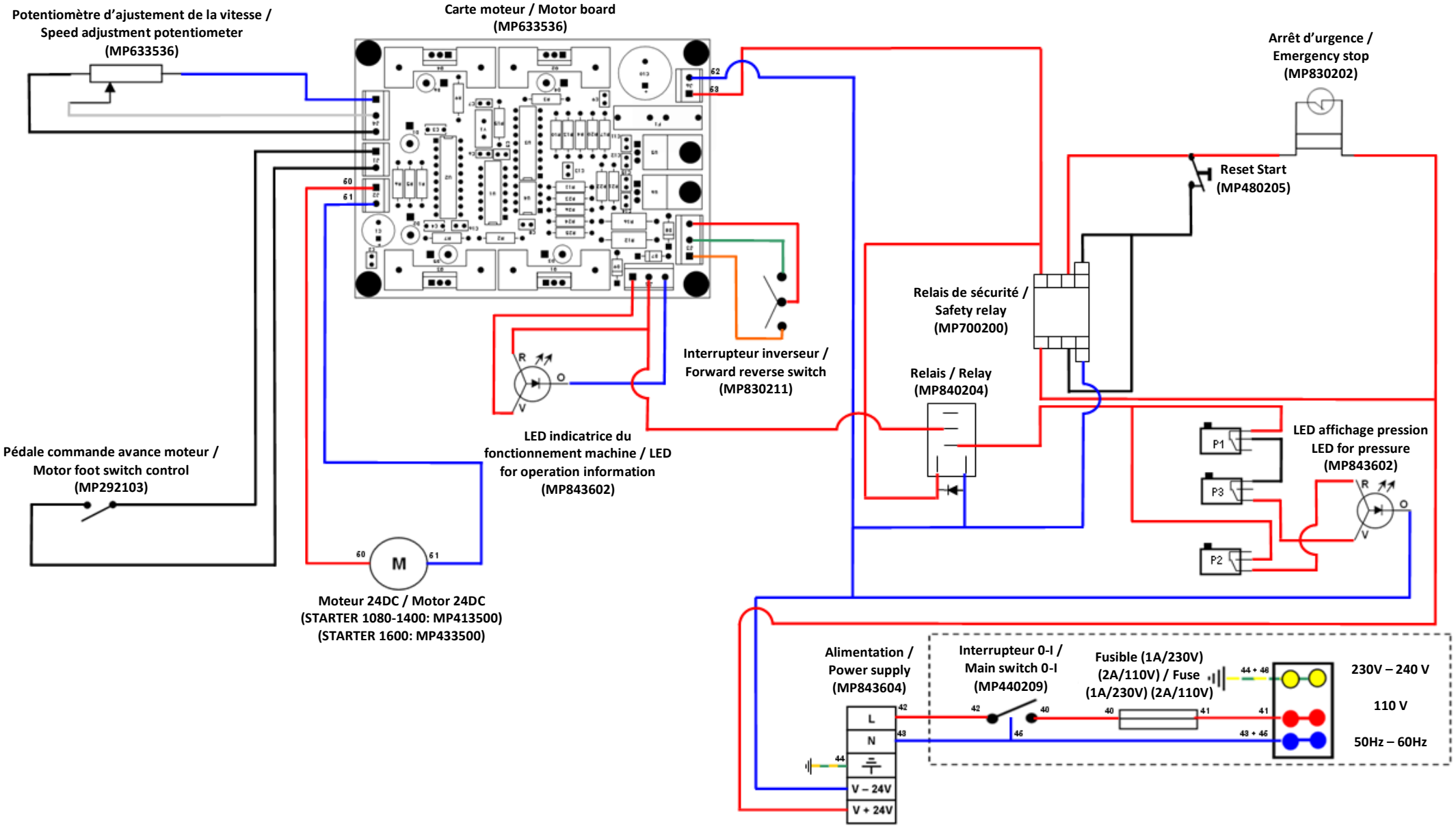
Pour tout autres cas de défauts, contacter l'installateur agrée par le constructeur.

13. RECYCLING

Starter laminator contains no components harmful to the environment. The disposal of your Starter must be collected by a recycling company.

The Starter is designed and constructed so that the noise emitted during operation is lower than 70 dB.

14. WIRING DIAGRAMM


Potentiomètre d'ajustement de la vitesse / Speed adjustment potentiometer (MP633536)
Carte moteur / Motor board (MP633536)
Arrêt d'urgence / Emergency stop (MP830202)
Reset Start (MP480205)
Relais de sécurité / Safety relay (MP700200)
Relais / Relay (MP840204)
Interrupteur inverseur / Forward reverse switch (MP830211)
LED indicatrice du fonctionnement machine / LED for operation information (MP843602)
LED affichage pression LED for pressure (MP843602)
Pédale commande avance moteur / Motor foot switch control (MP292103)
Moteur 24DC / Motor 24DC (STARTER 1080-1400: MP413500) (STARTER 1600: MP433500)
Alimentation / Power supply (MP843604)
Interrupteur 0-I / Main switch 0-I (MP440209)
Fusible (1A/230V) (2A/110V) / Fuse (1A/230V) (2A/110V)
230V – 240 V
110 V
50Hz – 60Hz
L
N
V – 24V
V + 24V
M
P1
P2
P3

TRANSLATED FROM ORIGINAL VERSION: EDITION 1